

Remarks

In the Office Action of September 21, 2004, the Examiner has objected to claim 2 and has rejected claims 1-4.

The Examiner's objection to claim 2 has been obviated by making the suggested correction by amendment. Independent claims 1 and 2 have been amended, claims 3 and 4 have been cancelled, and dependent claims 13-16 have been added. Claims 5-12 were withdrawn.

Claim 1 is rejected under 35 U.S.C. 102(b) by Flynn Patent No. 3,454,198. The Examiner points to Flynn's valve stem having an exterior frusto-conical annular surface about 82. However, 82 is a surface on valve plug 26 which is spring mounted within core 22 by spring 24. Plug 26 and core 22 thus act with relative motion in respect to each other. Applicant submits that core 22, not plug 26, is the valve stem but to the extent the Examiner considers plug 26 as a part of the valve stem, Applicant's amended claim 1 now provides that "said valve stem acts as a single integral member". Flynn's plug 26 and core 22 act as two members with relative motion therebetween provided by spring 24. In addition, Flynn's exterior frusto-conical annular surface about 80 and interior frusto-conical annular surface 70 are in sealing contact not only when the stem is deeply depressed but also when the aerosol valve is not being actuated due to spring 24 pushing plug 26 downward into conical seal 70. Applicant's amended claim 1 now provides that "said respective frusto-conical annular surfaces are separated from one another when the aerosol valve is not actuated and only engage each

other during propellant pressure filling". (Applicant's non-actuated valve position is shown in Fig. 1).

Claim 1 further recites that the valve housing is characterized by the absence of a propellant-filling orifice through the housing side wall axially below the valve stem gasket. Flynn, on the other hand, relies on propellant filling orifice 42 in the housing side wall for propellant filling. (Likewise in the Information Disclosure Statement, submitted herewith, the Japanese prior art has propellant-filling orifice 9 in the housing side wall for propellant filling.)

In short, Applicant's structure and arrangement and action of parts as now recited in amended claim 1 are neither shown nor suggested by Flynn.

The Examiner has rejected claim 2 over Flynn, and asserts that when Flynn's stem is deeply depressed, the propellant pressure filling occurs between the gasket top surface and the mounting cup bottom surface and around the outside of the gasket as claimed by Applicant. This is incorrect, see Flynn Col. 4, line 69 - Col. 5, line 6. In Flynn as recited, the propellant filling passes through the opening between gasket 30 and head 102 when core 22 is biased downwardly. The propellant filling in Flynn cannot pass between the gasket top surface and the mounting cup bottom surface, and around the outside of the gasket, all as disclosed and claimed by Applicant in claim 2. Flynn has no disclosure or suggestion of this arrangement and, in fact, the top surface of Flynn's gasket always remains flush against the flange portion 32 of nozzle 20.

In addition, Applicant's claim 2, as amended, also recites "said valve stem having a central dispensing channel for product dispensing and one or more lateral orifices extending through the valve stem side wall into said channel". Flynn has no disclosure or suggestion of orifice(s) 20 and channel 19 in a valve stem.

Claim 2 now further recites that the valve housing is characterized by the absence of a propellant-filling orifice through the housing side wall axially below the valve stem sealing gasket, whereas Flynn requires such an orifice 42 as noted above.

Claim 13, dependent on claim 1, and claim 15, dependent on claim 2, recite that the valve stem and housing engaging annular surfaces engage at a position substantially separated from the bottom of the valve stem. In Flynn, the engaging portion of plug surface 82 lies directly adjacent the bottom of plug 26.

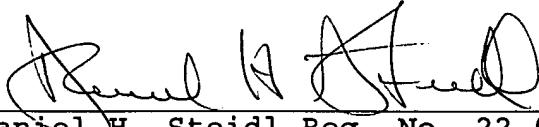
Claim 14, dependent on claim 2, recites that the valve stem acts as a single integral member, as opposed to Flynn's spring-biased plug 26, as discussed above. Claim 14 likewise recites that the respective annular surfaces are separated from one another when the aerosol valve is not actuated, as opposed to Flynn as discussed above.

Claim 16, dependent on claim 2, replaces cancelled claim 3.

Applicant submits that the present application is in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

KILGANNON & STEIDL
Attorneys for Applicant

By: 

Daniel H. Steidl-Reg. No. 22,098
85 Pondfield Road
Bronxville, New York 10708
Telephone: (914) 961-9460